and remission to compare biologic strategies in France, aligned with RA treatment goals. The results suggest that when used as the second biologic agent after an inadequate response to one anti-TNF agent, abatacept appears significantly more efficacious and cost-effective than rituximab.

PMS22

ADALIMUMAB, ETANERCEPT AND INFLIXIMAB IN THE TREATMENT OF ANKYLOSING SPONDYLITIS-COST EFFECTIVENESS ANALYSIS IN POLISH SETTINGS

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OBJECTIVES: To evaluate cost-effectiveness of TNF-a inhibitors (adalimumab, etanercept and infliximab) in the treatment of ankylosing spondylitis (AS) in polish settings. **METHODS:** Markov model was adapted for two health states: response and non-response according to ASAS20 criteria and cycle time was 3 months. Analysis was performed from the perspective of public payer (National Heath Fund) in the 1 year and life-time horizons. Costs analyzed: acquisition costs of drugs, drug administration and treatment monitoring costs, adverse events treatment costs, AS hospitalization costs, tuberculosis monitoring and treatment costs. Health outcomes included quality-adjusted life-year (QALY). Data from systematic review of published randomized clinical trials were used to evaluate transition probabilities during anti-TNF-a or comparator (standard AS therapy—NSAID and/or DMARD's) treatment. Utility values were calculated from BASFI, BASDAI, sex and age data based on published algorithm. Costs and effects were discounted 5% annually. Univariate and probabilistic sensitivity analyses were performed. Values are presented in PLN (exchange rate: 1 Euro = 3.40 PLN). **RESULTS:** In the base-case analysis QALY gains of 0.063 and 0.302 were estimated for patients treated with adalimumab, etanercept or infliximab in 1-year and life-time horizon, respectively. ICER/QALY in one year horizon was 597,455, 597,169 and 796,076 PLN/QALY for adalimumab, etanercept and infliximab, respectively. In life-time horizon ICER/QALY was 405,430, 405,235 and 471,707 PLN/QALY for adalimumab, etanercept and infliximab, respectively. **CONCLUSIONS:** Anti-TNF-alfa treatment is currently unattractive for all AS patients in polish health care settings, thus further analysis are needed to identify subgroups of patients who benefit most to ensure effective resources allocation.

PMS70

COST-EFFECTIVENESS OF ETANERCEPT VS. RITUXIMAB IN THE TREATMENT OF ACTIVE RHEUMATOID ARTHRITIS IN COLOMBIA

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OBJECTIVES: To evaluate the cost-effectiveness of etanercept combination therapy with methotrexate (MTX) versus rituximab with MTX for rheumatoid arthritis (RA) from a payer's perspective in Colombia. **METHODS:** A literature-based decision analytic model was constructed with a one year time horizon to compare the cost-effectiveness of etanercept 25 mg twice-weekly + MTX versus rituximab 2 × 1000mg infusion + MTX in RA patients with an inadequate response to disease-modifying anti-rheumatic drugs. The primary measure of clinical effectiveness was based on remission (Disease Activity Score 28 joint count < 2.6). The model incorporated major and minor infectious events, discontinuation due to lack of efficacy or adverse event, and rituximab re-treatment within the one year time-horizon. Drug costs were based on average wholesale price. Cost of managing adverse events and infusion costs were compiled based on queries to Colombian rheumatologists. Sensitivity analysis was conducted in the ±30% price range and efficacy parameters for etanercept and rituximab. **RESULTS:** One year total treatment costs for rituximab were COL$37,442,828 and COL$39,825,456 for etanercept. The percent of patients achieving remission was 3% for rituximab and 27% for etanercept at the end of 1 year. The incremental cost-effectiveness ratio (ICER) was COL$9931,754 per additional patient achieving remission. The number needed to treat was 29 for rituximab and 5 for etanercept. Given a hypothetical budget of COL$1,000,000,000, the number of patients achieving remission was 7 for etanercept and 1 for rituximab. Sensitivity analysis showed that etanercept continued to have more patients achieving remission than rituximab even if the drug cost and efficacy was varied by ±30% given a defined budget. **CONCLUSIONS:** The results suggest that etanercept appears to be cost-effective compared to rituximab. Additionally, more patients can be successfully treated to remission with etanercept than rituximab given a defined budget. These findings were robust for plausible ranges of effectiveness and drug acquisition costs.

PMS23

INITIAL COMBINATION THERAPY WITH INFLIXIMAB VERSUS SEQUENTIAL DMARD MONOTHERAPY: A COST-EFFECTIVENESS MODEL BASED ON THE BEST STUDY

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OBJECTIVES: The clinical benefit of initial combination therapy with infliximab in patients with rheumatoird arthritis was established in BeSt, a randomized clinical trial assessing the impact of four treatment strategies in patients recently (less than 2 years) diagnosed with RA. Treatment options were sequential monotherapy with DMARDs (group 1), step-up combination therapy (group 2), initial combination therapy with tapered high-dose prednisone (group 3), and initial combination therapy with infliximab (group 4). The cost-effectiveness of initial combination therapy with infliximab vs. sequential DMARD monotherapy was evaluated. **METHODS:** Data on clinical outcomes (Health Assessment Questionnaire [HAQ]) were extracted from the two-year publication of BeSt and extrapolated to five years. Medical resource use and drug costs (2006 £) were obtained from the British National Formulary and two systematic NICE reviews of TNF-α inhibitors in RA. Model outcomes, from a UK payer perspective, included cost per one-point improvement in HAQ and cost per quality-adjusted life-year (QALY); cost and benefit were discounted at 3.5%. HAQ scores were translated into QALYs using an established algorithm. Probabilistic sensitivity analyses were conducted to determine the impact of drug cost, HAQ improvement, and translation between HAQ and QALY. **RESULTS:** Initial combination therapy with prednisone or infliximab led to earlier HAQ improvement vs. sequential monotherapy and step-up combination therapy. Cumulative costs in group 1 increased from £1,155 to £15,875; costs in group 4 rose from £8,131 to £22,155. QALYs improved more in group 4 (0.70 to 3.30) than in group 1 (0.62 to 2.91). Cost per QALY declined from £92,764 (year 1) to £15,965 (year 5) for initial combination therapy with infliximab vs. sequential monotherapy. Results were not sensitive to changes in drug cost, HAQ, or the conversion algorithm. **CONCLUSIONS:** Higher costs associated with the earlier use of infliximab are offset by this regimen's clinical benefit over time.